CAS ONLINE PRINTOUT

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(FILE 'HOME' ENTERED AT 15:05:57 ON 08 DEC 2007)

FILE 'REGISTRY' ENTERED AT 15:06:09 ON 08 DEC 2007
L1 STRUCTURE UPLOADED
L2 17 S L1
L3 378 S L1 FUL
L4 STRUCTURE UPLOADED
L5 5 SEARCH L4 SSS SUB=L3 FULL

FILE 'CAPLUS' ENTERED AT 15:10:24 ON 08 DEC 2007
L6 9 S L5
L7 120 S L3

FILE 'REGISTRY' ENTERED AT 15:19:08 ON 08 DEC 2007
L8 STRUCTURE UPLOADED
L9 13 SEARCH L8 SSS SUB=L3 FULL

FILE 'CAPLUS' ENTERED AT 15:20:33 ON 08 DEC 2007
L10 10 S L9

=> d bib abs hitstr 1-10 l10

L10 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:997656 CAPLUS
DN 147:332726
TI Organic electroluminescent devices with high luminescent efficiency and stability on repetitive uses
IN Amano, Saneomi
PA Toyo Ink Mfg. Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 41pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2007227717	A	20070906	JP 2006-48076	20060224
PRAI	JP 2006-48076		20060224		

GI

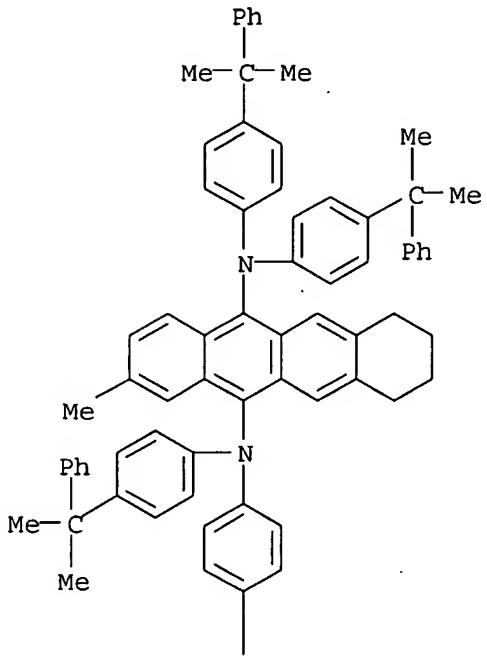
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The devices have emitting layers which consist of 50.0-99.999% host materials including I (Z1-Z14 = H, halo, C1-40 alkyl, C2-40 alkenyl, C2-40 alkynyl, etc., Z1-Z9 essentially include C6-40 aryl; Z10 and/or Z14 is C6-40 aryl) and 0.001-50.0% dopants including II [R1-R28 = H, halo, alkyl(oxy), aryl, heterocycle, amino; X1-X4 = O, S, CO, SO2, (CH2)xO(CH2)y, alkylene, bivalent alicyclic residue; x, y = 0-20; x + y ≠ 0]. The devices show long service life and require low drive voltage.
IT 942050-32-0 942050-35-3
RL: MOA (Modifier or additive use); USES (Uses)
(dopants, emitting layers; organic electroluminescent devices having anthracene compound-based host-guest-type emitting layers)
RN 942050-32-0 CAPLUS
CN 5,12-Naphthacenediamine, 7,8,9,10-tetrahydro-2-methyl-N5,N5,N12,N12-

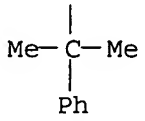
CAS ONLINE PRINTOUT

tetrakis[4-(1-methyl-1-phenylethyl)phenyl]- (CA INDEX NAME)

PAGE 1-A

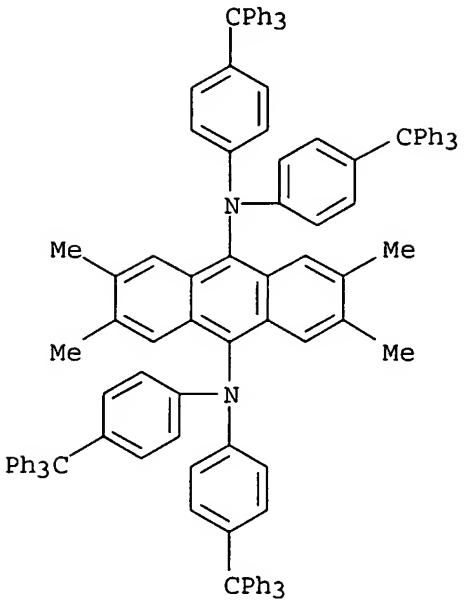


PAGE 2-A



RN 942050-35-3 CAPLUS
CN 9,10-Anthracenediamine, 2,3,6,7-tetramethyl-N9,N9,N10,N10-tetrakis[4-(triphenylmethyl)phenyl]- (CA INDEX NAME)

CAS ONLINE PRINTOUT



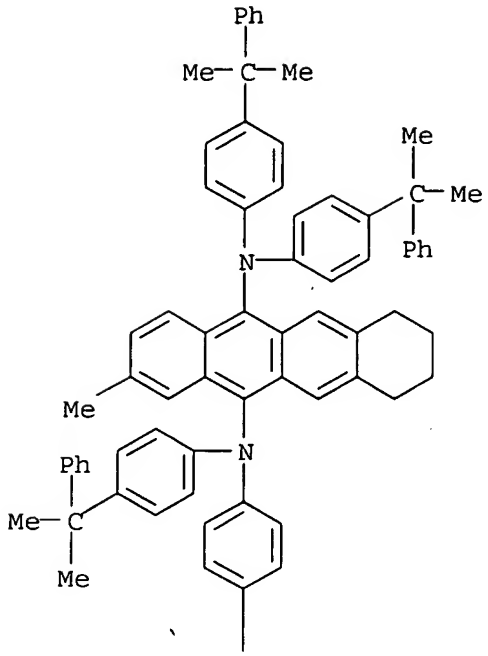
L10 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:671561 CAPLUS
DN 147:104944
TI Organic electroluminescence device having light-emitting layer containing hosts and dopants
IN Amano, Masaomi
PA Toyo Ink Mfg. Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 47pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2007157899	A	20070621	JP 2005-349149	20051202
PRAI	JP 2005-349149		20051202		

AB The device has a light-emitting layer or light-emitting layer-containing multilayer organic compound film between a pair of electrodes, wherein the light-emitting layer contains 50.0-99.999 weight% of hosts including N-aryl-benzimidazolyl metal complexes and 0.001-50.0 weight% of dopants including 9,10-bidiarylanthracene compds. The device shows light emission at low driving voltage and long life and is suitable for flat panel displays, flat light sources, etc.
IT 942050-32-0 942050-35-3
RL: MOA (Modifier or additive use); USES (Uses)
(dopant; organic electroluminescence device having light-emitting layer containing metal complex host and anthracene dopant)
RN 942050-32-0 CAPLUS
CN 5,12-Naphthacenediamine, 7,8,9,10-tetrahydro-2-methyl-N5,N5,N12,N12-tetrakis[4-(1-methyl-1-phenylethyl)phenyl]- (CA INDEX NAME)

CAS ONLINE PRINTOUT

PAGE 1-A



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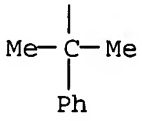
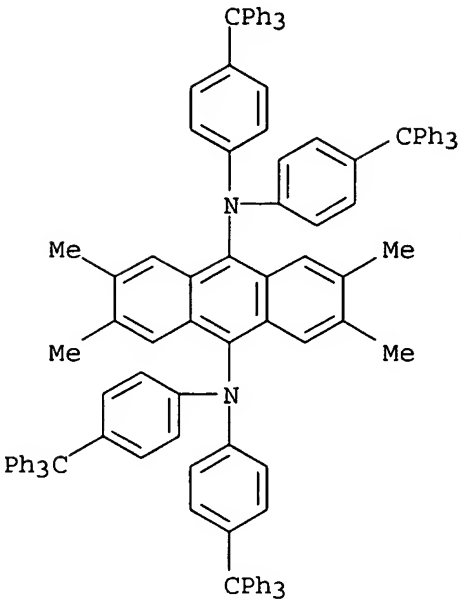


RN 942050-35-3 CAPLUS
CN 9,10-Anthracenediamine, 2,3,6,7-tetramethyl-N9,N9,N10,N10-tetrakis[4-(triphenylmethyl)phenyl]- (CA INDEX NAME)

CAS ONLINE PRINTOUT



L10 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:642430 CAPLUS
DN 147:62066
TI Anthracene derivatives for use in organic electronic devices and their synthesis and the devices
IN Heil, Holger; Buesing, Arne; Stoessel, Philipp
PA Merck Patent G.m.b.H., Germany
SO PCT Int. Appl., 57pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007065678	A1	20070614	WO 2006-EP11758	20061207
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	DE 102005058557	A1	20070614	DE 2005-102005058557	20051208
PRAI	DE 2005-102005058557 A		20051208		

OS MARPAT 147:62066
AB Compds. are described which comprise two substituted anthracene groups joined (at the 9 position) by ≥1 aromatic ring system and having at least a C5-30 (hetero)aromatic ring substituent at each 10 position, optionally with other substituents situated on the remaining positions. A method for synthesizing the compds. is described which entails forming the bonds between the anthracene groups and the aromatic groups using a Suzuki coupling reaction. The use of the compds. in electronic devices and

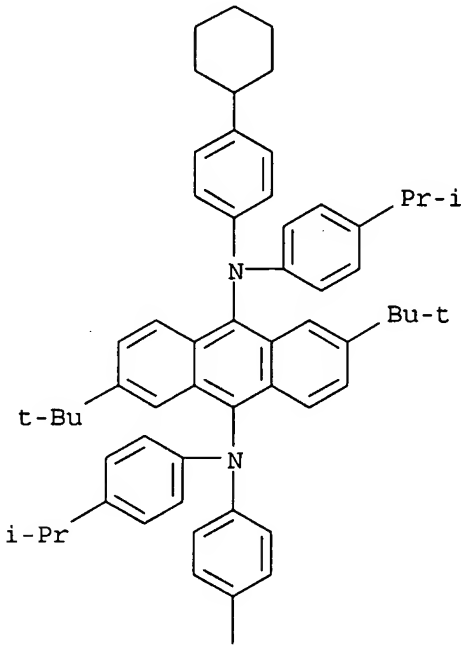
devices employing the compds. (e.g., organic field-effect transistors, organic thin-film transistors, organic light-emitting transistors, organic integrated circuits, organic solar cells, organic field quenching devices, organic laser diodes, organic photoreceptors, and, especially, organic electroluminescent devices)
are also described.

IT 939973-73-6
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(anthracene derivs. for use in organic electronic devices and their synthesis and devices)

RN 939973-73-6 CAPLUS

CN 9,10-Anthracenediamine, N9,N10-bis(4-cyclohexylphenyl)-2,6-bis(1,1-dimethylethyl)-N9,N10-bis[4-(1-methylethyl)phenyl]- (CA INDEX NAME)

PAGE 1-A



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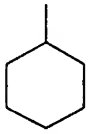

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:564481 CAPLUS
DN 146:523130
TI Polymers with good heat resistance and luminescent intensity for electroluminescence elements

CAS ONLINE PRINTOUT

IN Fukushima, Daisuke; Tsubata, Yoshiaki; Anryu, Makoto
PA Sumitomo Chemical Company, Limited, Japan
SO PCT Int. Appl., 117pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007058368	A1	20070524	WO 2006-JP323257	20061115
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	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	JP 2007162009	A	20070628	JP 2006-310009	20061116
PRAI	JP 2005-333759	A	20051118		

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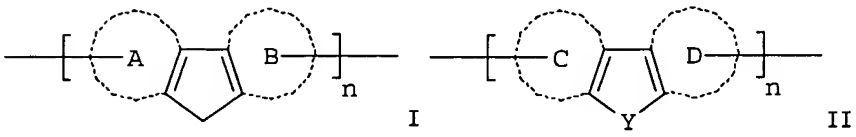


I II

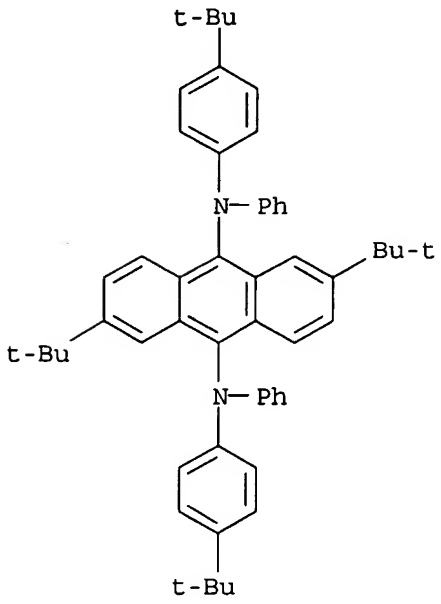
AB Title polymers comprise ≥1 repeat unit [Ar2N(Ar1)ZN(Ar1)Ar2] and ≥1 repeat unit selected I and II, wherein Ar1 = aryl or univalent aromatic heterocyclic group; Ar2 = arylene or bivalent aromatic heterocyclic group; and Z = bivalent aromatic group having a fused ring structure; rings A, B = independently aromatic hydrocarbon ring (≥1 of the rings A and B = aromatic hydrocarbon ring in which ≥2 benzene rings are fused); Rw, Rx = independently hydrogen atom or alkyl; rings C, D = independently aromatic ring; Y = O, S, or OC(Rk)2; Rk = H or alkyl. Thus, 0.11 mol 9,10-dibromoanthracene and 0.22 mol N-(4-tert-butylphenyl)aniline were reacted in the presence of 0.27 mmol tris(benzylideneacetone)dipalladium and 9 mmol tri-tert-butylphosphine at 100°, brominated with N-bromosuccinimide to give N,N'-bis[4-(1,1-dimethylethyl)phenyl]-N,N'-bis(4-bromophenyl)-9,10-Anthracenediamine, 0.24 mmol of which was polymerized with 3.76 mmol 5,9-dibromo-7,7-dioctyl-7H-benzo[c]fluorene and 3.96 mmol 2,2'-(7,7-dioctyl-7H-benzo[c]fluorene-5,9-diyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] at 105° for 4.5 h in the presence of 2.7 mg palladium acetate, 29.6 mg tris(2-methoxyphenyl)phosphine, and 0.52 g Aliquat 336 to give a copolymer with Mw 2.3 + 105, fluorescence intensity 7.1, and glass transition temperature 136°.

IT 936947-21-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate in monomer preparation; polymers with good heat resistance and luminescent intensity for electroluminescence elements)

RN 936947-21-6 CAPLUS

CN 9,10-Anthracenediamine, 2,6-bis(1,1-dimethylethyl)-N9,N10-bis[4-(1,1-

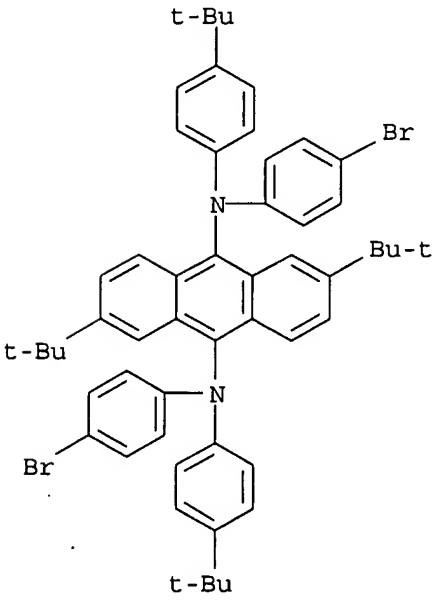
dimethylethyl)phenyl]-N9,N10-diphenyl- (CA INDEX NAME)



IT 936947-22-7P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer; polymers with good heat resistance and luminescent intensity for electroluminescence elements)

RN 936947-22-7 CAPLUS

CN 9,10-Anthracenediamine, N9,N10-bis(4-bromophenyl)-2,6-bis(1,1-dimethylethyl)-N9,N10-bis[4-(1,1-dimethylethyl)phenyl]- (CA INDEX NAME)



IT 936947-25-0P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or

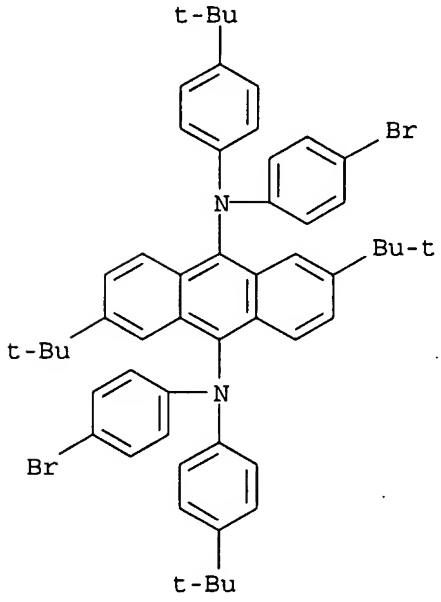
engineered material use); PREP (Preparation); USES (Uses)
(polymers with good heat resistance and luminescent intensity for electroluminescence elements)

RN 936947-25-0 CAPLUS

CN 9,10-Anthracenediamine, N9,N10-bis(4-bromophenyl)-2,6-bis(1,1-dimethylethyl)-N9,N10-bis[4-(1,1-dimethylethyl)phenyl]-, polymer with 5,9-dibromo-7,7-dioctyl-7H-benzo[c]fluorene and 2,2'-(7,7-dioctyl-7H-benzo[c]fluorene-5,9-diyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] (CA INDEX NAME)

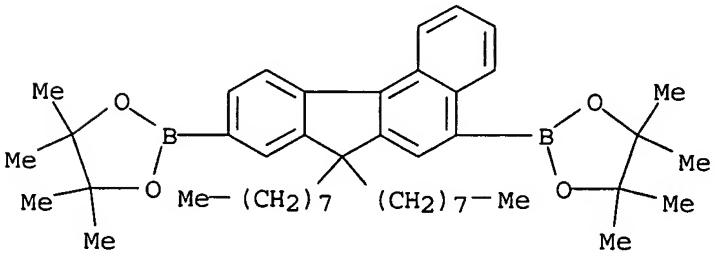
CM 1

CRN 936947-22-7
CMF C54 H58 Br2 N2



CM 2

CRN 854952-68-4
CMF C45 H66 B2 O4

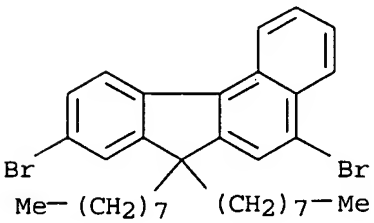


CM 3

CRN 794519-14-5

CAS ONLINE PRINTOUT

CMF C33 H42 Br2



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:463243 CAPLUS
DN 144:479288
TI Organic electroluminescent element
IN Funahashi, Masakazu; Ito, Mitsunori; Kawamura, Hisayuki
PA Idemitsu Kosan Co., Ltd., Japan
SO PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006051649	A1	20060518	WO 2005-JP16749	20050912
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	JP 2006140235	A	20060601	JP 2004-327019	20041110
	EP 1811585	A1	20070725	EP 2005-782401	20050912
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	CN 101057348	A	20071017	CN 2005-80038089	20050912
	US 2006110623	A1	20060525	US 2005-269661	20051109
	IN 2007CN02009	A	20070907	IN 2007-CN2009	20070510
PRAI	JP 2004-327019	A	20041110		
	WO 2005-JP16749	W	20050912		

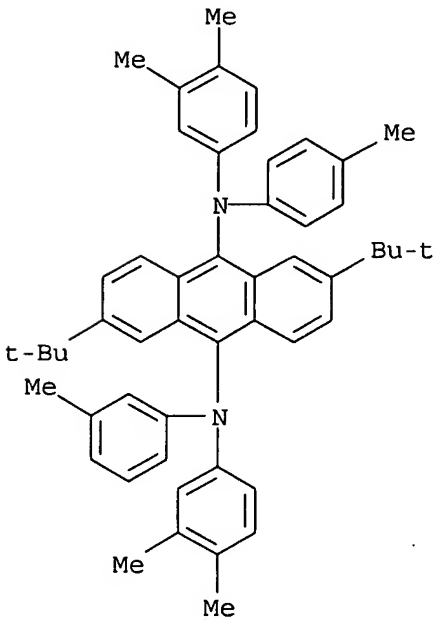
OS MARPAT 144:479288
AB An organic electroluminescent element which has excellent heat resistance, a long life, and a high luminescent efficiency and can emit a blue to red light. The organic electroluminescent element comprises a cathode, an anode, and an organic thin film sandwiched there-between which comprises one or more layers at least including a luminescent layer, the luminescent layer comprising a fluorene compound having a specific structure and an amine compound having a specific structure.
IT 886456-83-3 886456-84-4
RL: MOA (Modifier or additive use); USES (Uses)

CAS ONLINE PRINTOUT

(organic electroluminescent devices having excellent heat resistance)

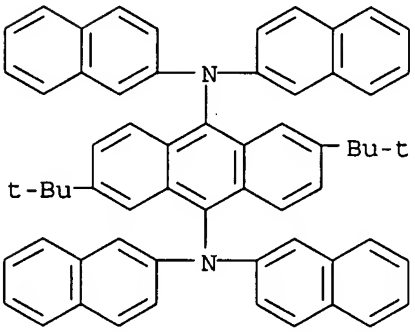
RN 886456-83-3 CAPLUS

CN 9,10-Anthracenediamine, 2,6-bis(1,1-dimethylethyl)-N,N'-bis(3,4-dimethylphenyl)-N-(3-methylphenyl)-N'-(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 886456-84-4 CAPLUS

CN 9,10-Anthracenediamine, 2,6-bis(1,1-dimethylethyl)-N,N,N',N'-tetra-2-naphthalenyl- (9CI) (CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:902330 CAPLUS

DN 141:386152

TI Aromatic amine derivative and organic electroluminescent device employing the same

IN Funahashi, Masakazu

PA Idemitsu Kosan Co., Ltd., Japan

SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2

CAS ONLINE PRINTOUT

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004092111	A1	20041028	WO 2004-JP140	20040113
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	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1612202	A1	20060104	EP 2004-701680	20040113
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	CN 1768029	A	20060503	CN 2004-80008768	20040113
	IN 2005CN02559	A	20070727	IN 2005-CN2559	20051006
	US 2006202190	A1	20060914	US 2005-552449	20051110
PRAI	JP 2003-106231	A	20030410		
	WO 2004-JP140	W	20040113		

OS MARPAT 141:386152

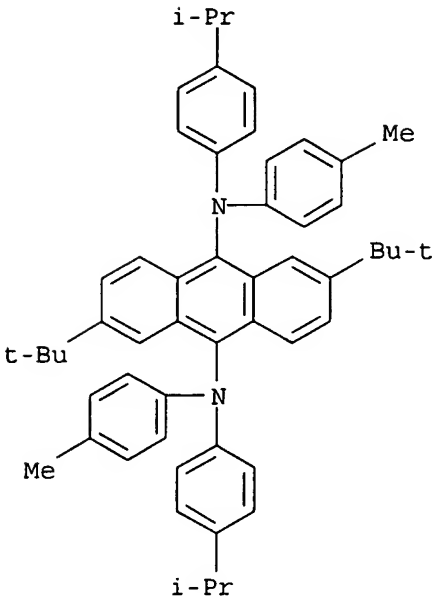
AB Disclosed is an aromatic amine derivative having a specific structure comprising a substituted anthracene structure and connected thereto an amine structure substituted by a substituted benzene ring; and an organic electroluminescent device comprising a cathode, an anode, and ≥1 thin organic film layers sandwiched therebetween which comprise at least a luminescent layer, wherein at least 1 of the thin organic film layers consists only of the aromatic amine derivative or contains the derivative as a component of a mixture The device is high in luminance and luminescence efficiency and has a long life. The aromatic amine derivative is a novel 1 which realizes the device.

IT 668020-34-6P 782504-31-8P 782504-32-9P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(aromatic amine derivative for organic electroluminescent device)

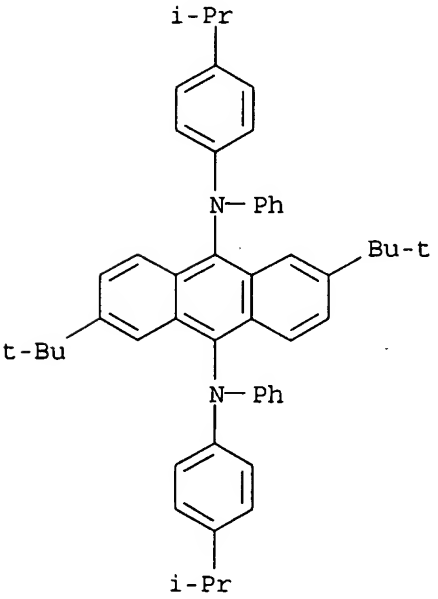
RN 668020-34-6 CAPLUS

CN 9,10-Anthracenediamine, 2,6-bis(1,1-dimethylethyl)-N,N'-bis[4-(1-methylethyl)phenyl]-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

CAS ONLINE PRINTOUT

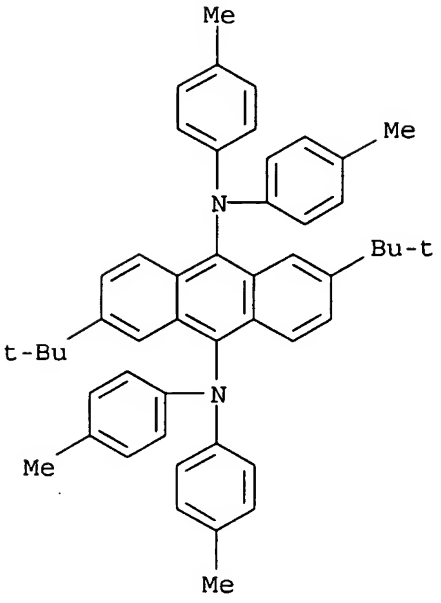


RN 782504-31-8 CAPLUS
CN 9,10-Anthracenediamine, 2,6-bis(1,1-dimethylethyl)-N,N'-bis[4-(1-methylethyl)phenyl]-N,N'-diphenyl- (9CI) (CA INDEX NAME)



RN 782504-32-9 CAPLUS
CN 9,10-Anthracenediamine, 2,6-bis(1,1-dimethylethyl)-N,N,N',N'-tetrakis(4-methylphenyl)- (9CI) (CA INDEX NAME)

CAS ONLINE PRINTOUT



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:182957 CAPLUS
DN 140:243296
TI Organic electroluminescent devices and organic luminescent medium
IN Matsuura, Masahide; Funahashi, Masakazu; Fukuoka, Kenichi; Hosokawa, Chishio
PA Idemitsu Kosan Co., Ltd., Japan
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

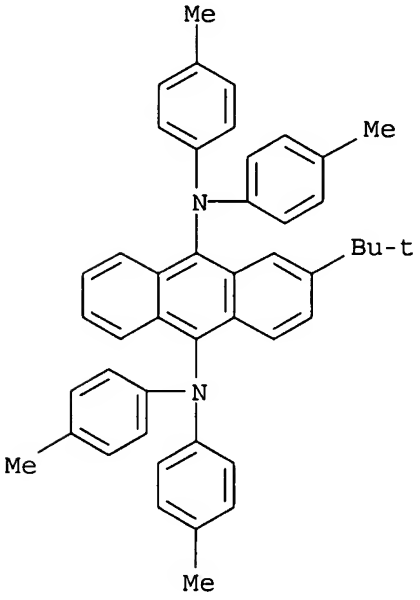
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004018588	A1	20040304	WO 2003-JP8463	20030703
	W: CN, JP, KR				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
	EP 1541657	A1	20050615	EP 2003-738656	20030703
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
	CN 1668719	A	20050914	CN 2003-817301	20030703
	CN 1842234	A	20061004	CN 2006-10067808	20030703
	CN 101068041	A	20071107	CN 2007-10101150	20030703
	TW 278248	B	20070401	TW 2003-92118623	20030708
	US 2005064233	A1	20050324	US 2003-617397	20030711
	US 2006033421	A1	20060216	US 2005-207933	20050822
	US 2007237984	A1	20071011	US 2007-761437	20070612
PRAI	JP 2002-211308	A	20020719		
	CN 2003-817301	A3	20030703		
	WO 2003-JP8463	W	20030703		
	US 2003-617397	A3	20030711		
	US 2005-207933	A1	20050822		

OS MARPAT 140:243296
AB An organic electroluminescent device comprises a pair of electrodes and an

organic luminescent medium layer which is placed between the electrodes and contains (A) a specific arylamine and (B) at least one compound selected from among specific anthracene derivs., spiro fluorene derivs., fused-ring compds., and metal complexes; and an organic luminescent medium containing the components (A) and (B). The organic electroluminescent device exhibits high color purity, excellent heat resistance and a long lifetime and emits blue to yellow light at high efficiency, and the organic luminescent medium is suitable for use in such devices.

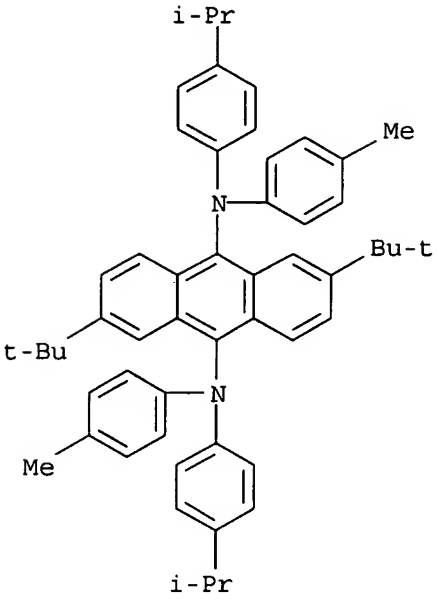
IT 668020-28-8 668020-34-6
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent devices and organic luminescent medium)

RN 668020-28-8 CAPLUS
CN 9,10-Anthracenediamine, 2-(1,1-dimethylethyl)-N,N,N',N'-tetrakis(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 668020-34-6 CAPLUS
CN 9,10-Anthracenediamine, 2,6-bis(1,1-dimethylethyl)-N,N'-bis[4-(1-methylethyl)phenyl]-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

CAS ONLINE PRINTOUT



RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:180620 CAPLUS
DN 128:276872
TI Organic electroluminescent devices and N-aryl-substituted diaminoanthracene compounds for use in their manufacture
IN Enokida, Toshio; Tamano, Michiko; Okutsu, Satoshi
PA Toyo Ink Mfg. Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 38 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10072581	A	19980317	JP 1996-244493	19960917
	US 6251531	B1	20010626	US 1998-30791	19980226
PRAI	JP 1995-245607	A	19950925		
	JP 1996-12430	A	19960129		
	JP 1996-170809	A	19960701		
	US 1996-688879	A3	19960731		

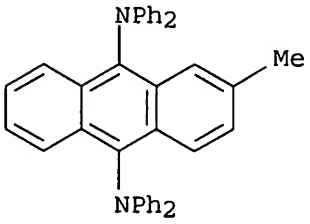
OS MARPAT 128:276872
AB The title devices emitting light at high brightness while having long service life have a light-emitting layer (L) or an organic thin layer containing the L between a pair of electrodes as usual where the L contains (optionally doped) 9,10-(N,N,N',N'-tetra-C6-16 aryl)diaminoanthracene compds. (optionally substituted with halogen, alkyl, alkoxy, aryl or amino groups on ring) as light-emitting materials. Optionally, between the L and the anode, an electron transport layer containing aromatic tertiary amine or phthalocyanine derives is formed and between the L and the cathode, a hole transport layer containing metal complexes or N-containing 5-membered ring heterocyclic compds. is formed. Thus, spin-coating a solution of 9,10-(N,N,N',N'-tetra-p-tolyl)diaminoanthracene 5, 2,5-bis(1-naphthyl)-1,3,4-oxadiazole 3, and a polycarbonate resin (Panlite K-1300) 2 parts in

THF on a glass plate bearing an ITO electrode gave a light-emitting layer (100 nm), on which a thin (150 nm) layer of Mg-Ag alloy was formed to give an organic electroluminescent cell emitting a green light under a DC voltage of 5 V at a maximum brightness of 1200 cd/m2 and luminous efficiency of 0.70 lm/W.

IT 189263-84-1
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(light-emitting substances; organic electroluminescent devices and N-aryl-substituted diaminoanthracene compds. for use in manufacture)

RN 189263-84-1 CAPLUS

CN 9,10-Anthracenediamine, 2-methyl-N,N,N',N'-tetraphenyl- (9CI) (CA INDEX NAME)



L10 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:180619 CAPLUS

DN 128:276871

TI Organic electroluminescent devices and N-aryl-substituted diaminoanthracene compounds for use in their manufacture

IN Enokida, Toshio; Tamano, Michiko; Okutsu, Satoshi

PA Toyo Ink Mfg. Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 36 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10072580	A	19980317	JP 1996-244492	19960917
	JP 2924810	B2	19990726		
	US 6251531	B1	20010626	US 1998-30791	19980226
	JP 11265788	A	19990928	JP 1999-7257	19990114
	JP 3340687	B2	20021105		
PRAI	JP 1995-245607	A	19950925		
	JP 1996-12430	A	19960129		
	JP 1996-170808	A	19960701		
	US 1996-688879	A3	19960731		
	JP 1996-244492	A3	19960917		

OS MARPAT 128:276871

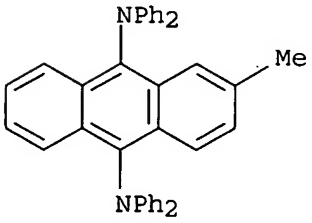
AB The title devices emitting light at high brightness while having long service life have a light-emitting layer (L) or an organic thin layer containing the L between a pair of electrodes as usual where the L contains (optionally halogen-, alkyl-, alkoxy-aryl- or amine-substituted) 9,10-(N,N,N',N'-tetra-C6-16 aryl)diaminoanthracene compds. as light-emitting materials. Optionally, between the L and the anode, an electron transport layer containing aromatic tertiary amine or phthalocyanine derivs. is formed; and between the L and the cathode, a hole transport layer containing metal complexes or N-containing 5-membered ring heterocyclic compds. is formed. Thus, spin-coating a solution of 9,10-(N,N,N',N'-tetra-p-

tolyl)diaminoanthracene 5, 2,5-bis(1-naphthyl)-1,3,4-oxadiazole 3, and a polycarbonate resin (Panlite K-1300) 2 parts in THF on a glass plate bearing an ITO electrode gave a light-emitting layer (100 nm), on which a thin (150 nm) layer of Mg-Ag alloy was formed to give an organic electroluminescent cell emitting a green light under a DC voltage of 5 V at a maximum brightness of 1200 cd/m2 and luminous efficiency of 0.70 lm/W.

IT 189263-84-1
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(light-emitting substances; for manufacture of organic electroluminescent devices with high brightness and long service life)

RN 189263-84-1 CAPLUS

CN 9,10-Anthracenediamine, 2-methyl-N,N,N',N'-tetraphenyl- (9CI) (CA INDEX NAME)



L10 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:334774 CAPLUS

DN 126:310317

TI Light-emitting material for organic electroluminescence device, and organic electroluminescence device for which the light-emitting material is adapted

IN Enokida, Toshio; Tamano, Michiko; Okutsu, Satoshi

PA Toyo Ink Manufacturing Co., Ltd., Japan

SO Eur. Pat. Appl., 46 pp.
CODEN: EPXXDW

DT Patent

LA English

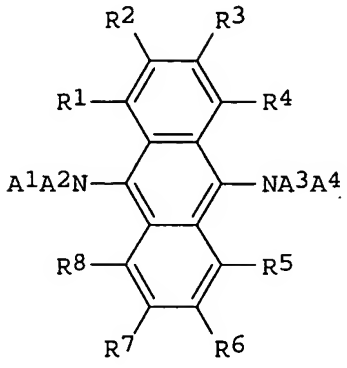
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 765106	A2	19970326	EP 1996-305586	19960730
	EP 765106	A3	19970813		
	EP 765106	B1	20021127		
	R: DE, FR, GB				
	EP 1146034	A1	20011017	EP 2001-113795	19960730
	R: DE, FR, GB				
	US 5759444	A	19980602	US 1996-688879	19960731
	KR 204220	B1	19990615	KR 1996-42007	19960924
	US 6251531	B1	20010626	US 1998-30791	19980226
PRAI	JP 1995-245607	A	19950925		
	JP 1996-12430	A	19960129		
	EP 1996-305586	A3	19960730		
	US 1996-688879	A3	19960731		

OS MARPAT 126:310317

GI

CAS ONLINE PRINTOUT



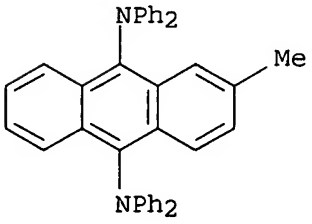
I

AB The title light-emitting compds. are described by the general formula I (A1-A4 are individually selected C6-16 substituted or unsubstituted aryl groups; and each of R1-8 is independently a hydrogen atom, a halogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryl group or a substituted or unsubstituted amino group, provided that adjacent substituents may form an aryl ring). Use of the compds. as light-emitting materials in organic electroluminescent devices, and organic electroluminescent devices containing them, are also described.

IT 189263-84-1
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(anthracenediamine derivative-based light-emitting materials for organic electroluminescent devices and the devices)

RN 189263-84-1 CAPLUS

CN 9,10-Anthracenediamine, 2-methyl-N,N,N',N'-tetraphenyl- (9CI) (CA INDEX NAME)



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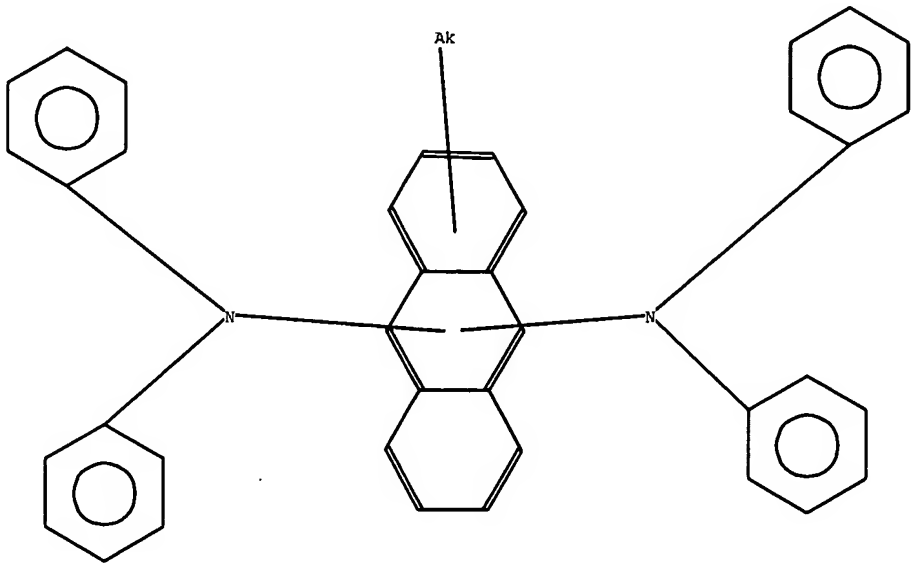
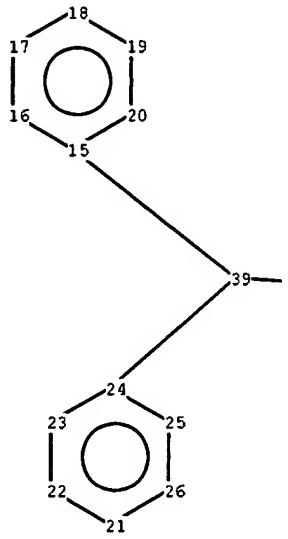
L8





chain nodes :
39 40 44
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
29 30 31 32 33 34 35 36 37 38
chain bonds :
15-39 24-39 27-40 35-40
ring bonds :

14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:At
24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom 31:At
35:Atom 36:Atom 37:Atom 38:Atom 39:CLAS$40:CLAS$41:Atom 42:A

CAS ONLINE PRINTOUT

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(FILE 'HOME' ENTERED AT 15:05:57 ON 08 DEC 2007)

FILE 'REGISTRY' ENTERED AT 15:06:09 ON 08 DEC 2007
L1 STRUCTURE UPLOADED
L2 17 S L1
L3 378 S L1 FUL
L4 STRUCTURE UPLOADED
L5 5 SEARCH L4 SSS SUB=L3 FULL

FILE 'CAPLUS' ENTERED AT 15:10:24 ON 08 DEC 2007
L6 9 S L5

=> d bib abs hitstr 1-9

L6 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:1361638 CAPLUS
DN 147:531257
TI White-emitting organic electroluminescent device satisfying an ionization potential relationship for carrier barrier layer and first emitting layer
IN Jinde, Yukitoshi; Kuma, Hitoshi; Ikeda, Kiyoshi; Ito, Mitsunori
PA Idemitsu Kosan Co., Ltd., Japan
SO U.S. Pat. Appl. Publ., 35pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2007275266	A1	20071129	US 2006-475225	20060627
	WO 2007138906	A1	20071206	WO 2007-JP60345	20070521

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI	JP 2006-146001	A	20060525
	JP 2006-145983	A	20060525
	US 2006-475081	A	20060627
	US 2006-475225	A	20060627

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -, AVAILABLE VIA OFFLINE PRINT *

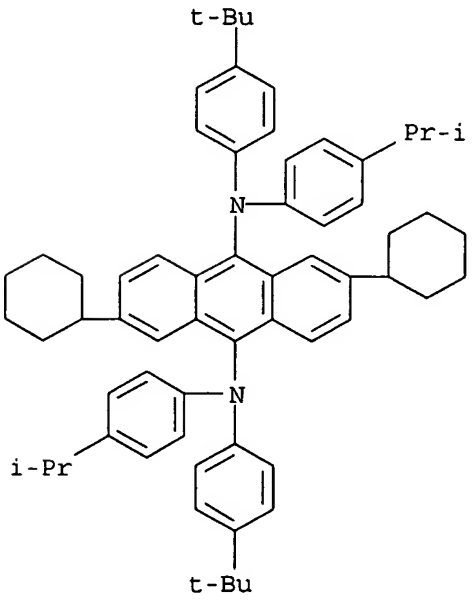
AB An organic electroluminescent device including an anode , a first emitting layer , a carrier barrier layer , a second emitting layer , and a cathode stacked in that order; the first emitting layer including a host material of a compound represented by X-(Y)n [X is a condensed aromatic ring group with 3 or more carbocycles; Y is group selected from (un)substituted aryl, diarylamino, arylalkyl, alkyl; n = 1-6, provided that Y's may be the same

or different when n ≥ 2], and a dopant material of a compound containing a fluoranthene skeleton or a perylene skeleton; the affinity level of the carrier barrier layer being smaller than the affinity level of the second emitting layer in an amount of 0.2 eV or more; and the ionization potential (Ie-1) of the carrier barrier layer and the ionization potential (Ih-1) of the first emitting layer satisfying Ie-1<Ih-1 + 0.1 (eV). Thus, an OLED was fabricated as follows: {ITO (130 nm)}/{HI film (60 nm, I)}/{HT film (15 nm, 4,4'-bis[bis(4-biphenylyl)amino]biphenyl)}/{first red-emitting layer [red host, Eg 2.4 eV, 5,12-bis(2,4-diphenylphenyl)tetracene; red dopant = II, total thickness 5 nm such that dopant concentration was 0.5 wt %]}/{carrier barrier layer (5 nm, HT film, Ip/Af (eV) = 5.36/2.3)}/{second blue-emitting layer with Ip/Af (eV) = 5.8/2.8 [blue host = 9-(2-naphthyl)-10-[4-(1-naphthyl)phenyl]anthracene; blue dopant = III, total thickness 40 nm such that dopant concentration was 7.5 wt %]}/{ET layer Alq3 (20 nm)}/{EI layer LiF (1.6 nm)}/{Al cathode (150 nm)} in which red emission + blue emission + a carrier barrier layer with a small affinity level were provided, yielding excellent white emission (x, y) = (0.27, 0.26) with external quantum efficiency of 7.6%; the comparative example that lacked the barrier layer exhibited CIE1931 chromaticity (x, y) = (0.5, 0.31), e.g., significantly apart from white (0.33, 0.33), so that red became strong and white could not be obtained.

IT 782504-36-3
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(green dopant and carrier barrier layer dopant; white-emitting organic electroluminescent device satisfying an ionization potential relationship for carrier barrier layer and first emitting layer)

RN 782504-36-3 CAPLUS

CN 9,10-Anthracenediamine, 2,6-dicyclohexyl-N9,N10-bis[4-(1,1-dimethylethyl)phenyl]-N9,N10-bis[4-(1-methylethyl)phenyl]- (CA INDEX NAME)



L6 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:997656 CAPLUS

DN 147:332726

TI Organic electroluminescent devices with high luminescent efficiency and

CAS ONLINE PRINTOUT

stability on repetitive uses
IN Amano, Saneomi
PA Toyo Ink Mfg. Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 41pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2007227717	A	20070906	JP 2006-48076	20060224
PRAI	JP 2006-48076		20060224		

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

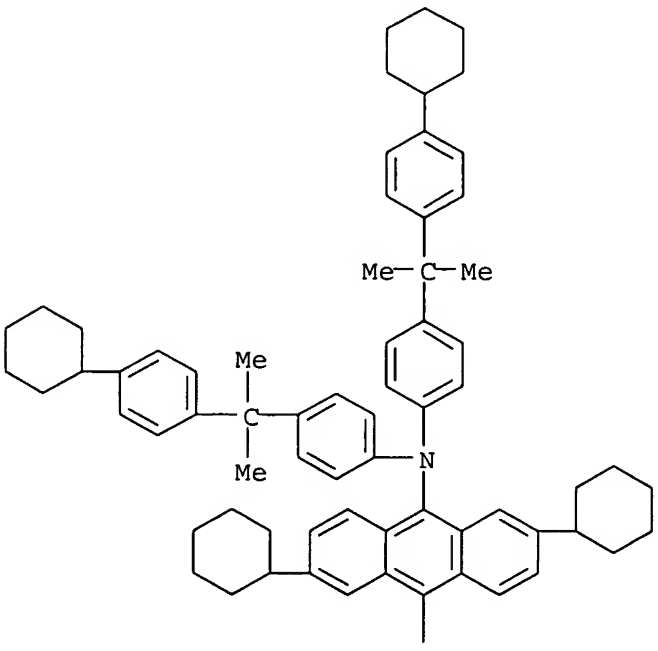
AB The devices have emitting layers which consist of 50.0-99.999% host materials including I (Z1-Z14 = H, halo, C1-40 alkyl, C2-40 alkenyl, C2-40 alkynyl, etc., Z1-Z9 essentially include C6-40 aryl; Z10 and/or Z14 is C6-40 aryl) and 0.001-50.0% dopants including II [R1-R28 = H, halo, alkyl(oxy), aryl, heterocycle, amino; X1-X4 = O, S, CO, SO2, (CH2)xO(CH2)y, alkylene, bivalent alicyclic residue; x, y = 0-20; x + y ≠ 0]. The devices show long service life and require low drive voltage.

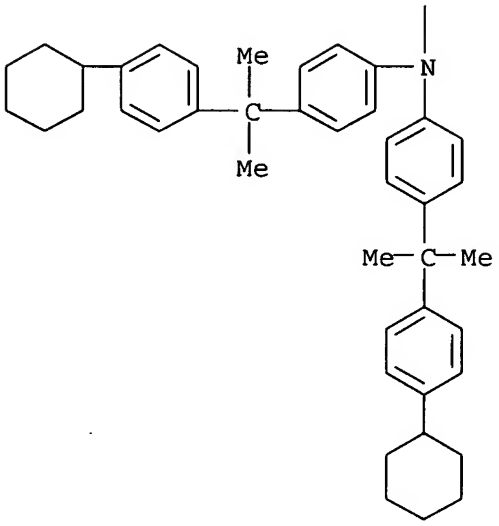
IT 942050-40-0
RL: MOA (Modifier or additive use); USES (Uses)
(dopants, emitting layers; organic electroluminescent devices having anthracene compound-based host-guest-type emitting layers)

RN 942050-40-0 CAPLUS

CN 9,10-Anthracenediamine, 2,6-dicyclohexyl-N9,N9,N10,N10-tetrakis[4-[1-(4-cyclohexylphenyl)-1-methylethyl]phenyl]- (CA INDEX NAME)

PAGE 1-A





L6 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:671561 CAPLUS
DN 147:104944
TI Organic electroluminescence device having light-emitting layer containing hosts and dopants
IN Amano, Masaomi
PA Toyo Ink Mfg. Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 47pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

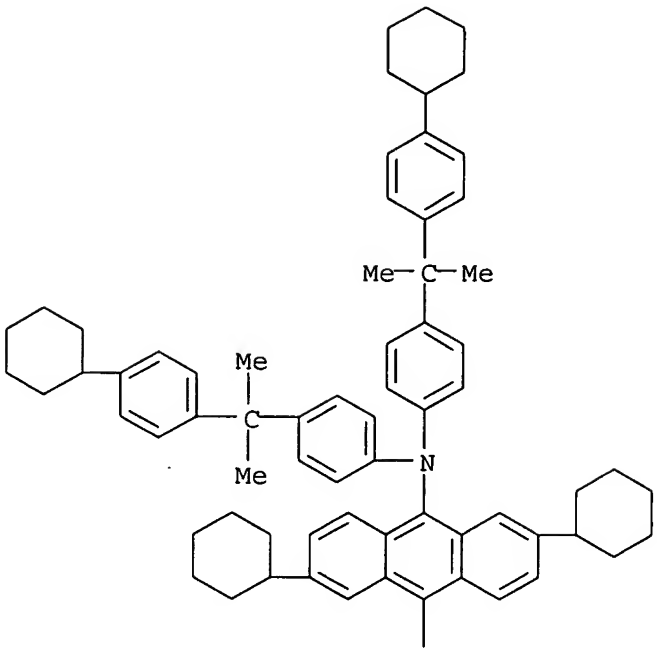
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2007157899	A	20070621	JP 2005-349149	20051202
PRAI	JP 2005-349149		20051202		

AB The device has a light-emitting layer or light-emitting layer-containing multilayer organic compound film between a pair of electrodes, wherein the light-emitting layer contains 50.0-99.999 weight% of hosts including N-aryl-benzimidazolyl metal complexes and 0.001-50.0 weight% of dopants including 9,10-bidiarylanthracene compds. The device shows light emission at low driving voltage and long life and is suitable for flat panel displays, flat light sources, etc.

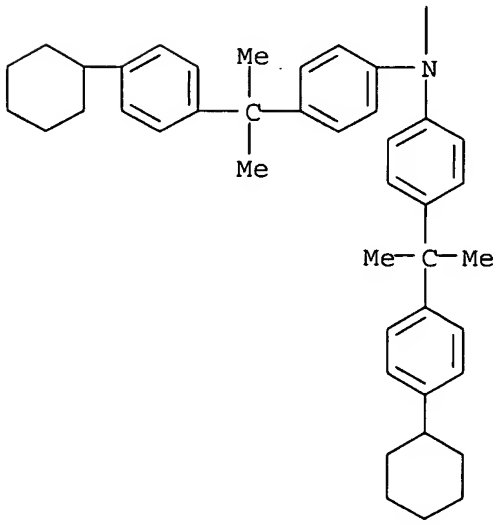
IT 942050-40-0
RL: MOA (Modifier or additive use); USES (Uses)
(dopant; organic electroluminescence device having light-emitting layer containing metal complex host and anthracene dopant)
RN 942050-40-0 CAPLUS
CN 9,10-Anthracenediamine, 2,6-dicyclohexyl-N9,N9,N10,N10-tetrakis[4-[1-(4-cyclohexylphenyl)-1-methylethyl]phenyl]- (CA INDEX NAME)

CAS ONLINE PRINTOUT

PAGE 1-A



PAGE 2-A



L6 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:330191 CAPLUS
DN 146:326163
TI Pyrene derivative and organic electroluminescence device
IN Ito, Mitsunori; Kubota, Mineyuki; Funahashi, Masakazu
PA Idemitsu Kosan Co., Ltd., Japan
SO PCT Int. Appl., 92pp.
CODEN: PIXXD2
DT Patent
LA Japanese

CAS ONLINE PRINTOUT

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007032162	A1	20070322	WO 2006-JP315687	20060808

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI JP 2005-270664 A 20050916

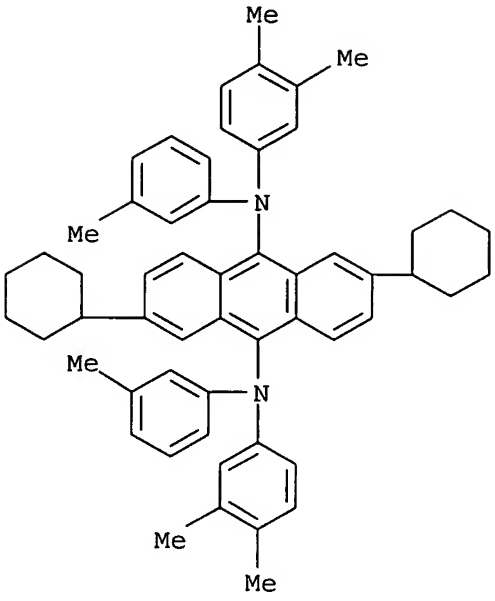
AB An organic electroluminescence device comprising a neg. electrode and a pos. electrode and one or two or more organic thin-film layers including at least a light emitting layer, wherein the light emitting layer contains a pyrene derivative AkXmArnYoBp [X = (un)substituted pyrene; A,B = H, (un)substituted C6-50 aromatic hydrocarbon, (un)substituted C5-50 aromatic heterocycle or (un)substituted C1-30 (un)saturated alkylene; Ar = (un)substituted C6-50 aromatic hydrocarbon or (un)substituted C5-50 aromatic heterocycle; Y = (un)substituted C1-50 condensed ring or condensed heterocycle; k, o, p = 0 - 10, m = 1 - 10, n > 3] and an amine compound Y1(Y2)NPq(NY3(Y4))r [P = (un)substituted C6-40 aromatic hydrocarbon, (un)substituted C3-40 heterocycle, (un)substituted styryl or (un)substituted C10-40 condensed aromatic; Y1-4 = (un)substituted alkylene, aralkylene, alkenylene, amino or silyl, (un)substituted arylene or unsubstituted carbonyl or ether or thio ester containing divalent heterocycle chains; q = 1 - 20, r = 0 - 3]. The organic electroluminescence device excels in heat resistance, ensuring prolonged operating life and high luminous efficiency, and is capable of emitting blue, green and red lights.

IT 928760-06-9
RL: TEM (Technical or engineered material use); USES (Uses)
(pyrene derivative and organic electroluminescence device)

RN 928760-06-9 CAPLUS

CN 9,10-Anthracenediamine, 2,6-dicyclohexyl-N9,N10-bis(3,4-dimethylphenyl)-N9,N10-bis(3-methylphenyl)- (CA INDEX NAME)

CAS ONLINE PRINTOUT



RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:329265 CAPLUS
DN 146:347149
TI Asymmetric fluorene derivative and organic electroluminescent element containing the same
IN Ito, Mitsunori; Kubota, Mineyuki; Funahashi, Masakazu
PA Idemitsu Kosan Co., Ltd., Japan
SO PCT Int. Appl., 91pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007032161	A1	20070322	WO 2006-JP315643	20060808

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

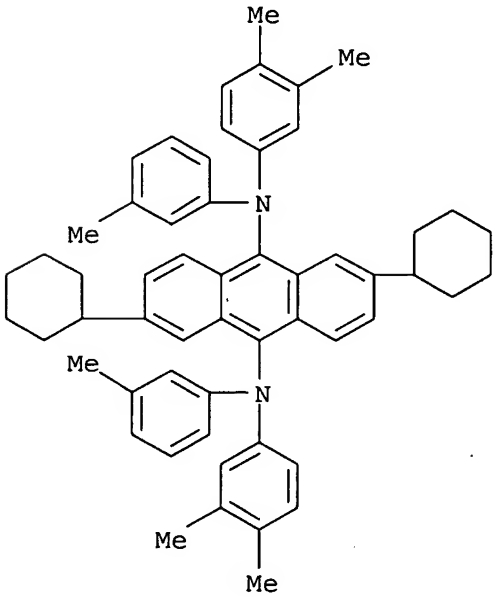
PRAI JP 2005-268968 A 20050915

AB The invention refers to an organic electroluminescent element which comprises a cathode and an anode and, sandwiched there between, one or more thin organic layers comprising a luminescent layer, wherein at least one of the thin organic layers comprises an asym. fluorene derivative compound Ar1kAFL1kBFL2nCAr2p [Ar1,2 = (un)substituted C6-50 aromatic hydrocarbon or heterocycle; A,B,C = single bond, (un)substituted alkylene, aralkylene, arylene or heteroatom, or alkylene, aralkylene alkynyl, amino, silyl,

carbonyl ether or thioether having (un)substituted arylene or divalent heterocycle; FL1,2 = (un)substituted fluorenediyl; k, p = 0 - 10, k + p ≥ 1; m,n = 1 - 10, m + n ≥ 1] and an amine compound Y1Y2NPq(NY3Y4)r [P = (un)substituted C6-40 aromatic hydrocarbon, C3-40 heterocycle, styryl, or (un)substituted C10.40 condensed aromatic]. This organic electroluminescent element has excellent heat resistance and a long life and can emit any of blue, green, and red lights at a high luminescent efficiency.

IT 928760-06-9
RL: TEM (Technical or engineered material use); USES (Uses)
(asym. fluorene derivative and organic electroluminescent element containing the same)

RN 928760-06-9 CAPLUS
CN 9,10-Anthracenediamine, 2,6-dicyclohexyl-N9,N10-bis(3,4-dimethylphenyl)-N9,N10-bis(3-methylphenyl)- (CA INDEX NAME)



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:1292135 CAPLUS
DN 143:485667
TI White organic electroluminescent device
IN Tokailin, Hiroshi; Kuma, Hitoshi; Kubota, Mineyuki; Funahashi, Masakazu
PA Idemitsu Kosan Co., Ltd., Japan
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005117500	A1	20051208	WO 2005-JP9244	20050520

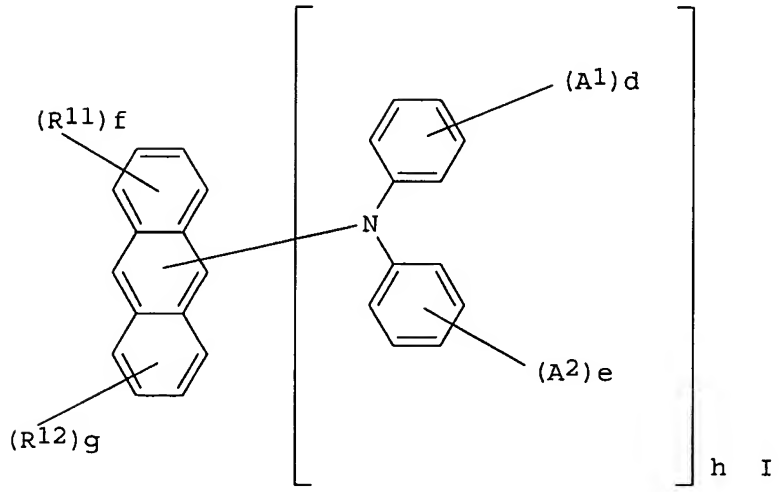
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,

LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1753271	A1	20070214	EP 2005-741569	20050520	
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR					
CN 1957646	A	20070502	CN 2005-80016963	20050520	
US 2006127698	A1	20060615	US 2005-254852	20051021	
KR 2007033339	A	20070326	KR 2006-724771	20061124	
PRAI JP 2004-158285	A	20040527			
WO 2005-JP9244	W	20050520			

GI



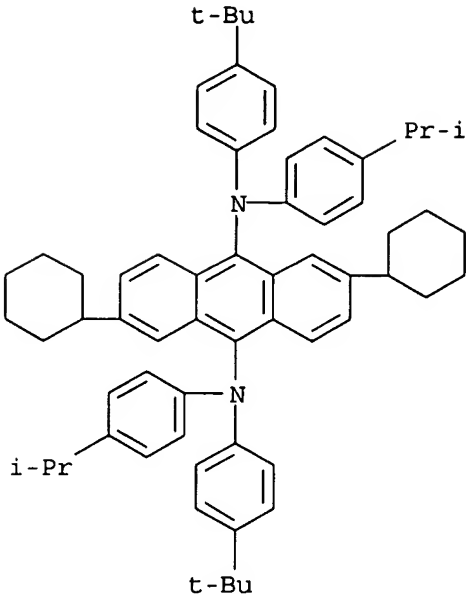
AB Disclosed is a white organic EL device wherein light-emitting layers are interposed between an anode and a cathode, the light-emitting layers resp. emit blue light, green light and red light, and the light-emitting layer contains a green dopant which is an aromatic amine compound represented by the following formula I, where A1, A2, and R12 resp. represent a hydrogen atom, an alkyl group, an aryl group, a cycloalkyl group, an alkoxy group, an aryloxy group, an arylamino group, an alkylamino group or a halogen atom; d and e resp. represent a number of 1-5; h represents a number of 1-9; R11 represents a secondary or tertiary alkyl group or cycloalkyl group; f represents a number of 1-9; g represents a number of 0-8; and f+g+h =2-10.

IT 782504-36-3
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(white organic electroluminescent device)

RN 782504-36-3 CAPLUS

CN 9,10-Anthracenediamine, 2,6-dicyclohexyl-N9,N10-bis[4-(1,1-dimethylethyl)phenyl]-N9,N10-bis[4-(1-methylethyl)phenyl]- (CA INDEX NAME)

CAS ONLINE PRINTOUT



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:1168986 CAPLUS
DN 143:429836
TI Organic electroluminescent device
IN Funahashi, Masakazu
PA Idemitsu Kosan Co., Ltd., Japan
SO PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005104627	A1	20051103	WO 2005-JP6849	20050407
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	JP 2005310441	A	20051104	JP 2004-123104	20040419
	EP 1740019	A1	20070103	EP 2005-728489	20050407
	R: DE, FR, GB, NL				
	CN 1943279	A	20070404	CN 2005-80011694	20050407
	US 2007207343	A1	20070906	US 2006-547306	20061004
	KR 2007004861	A	20070109	KR 2006-721633	20061018
	IN 2006CN03848	A	20070615	IN 2006-CN3848	20061018
PRAI	JP 2004-123104	A	20040419		
	WO 2005-JP6849	W	20050407		

OS MARPAT 143:429836

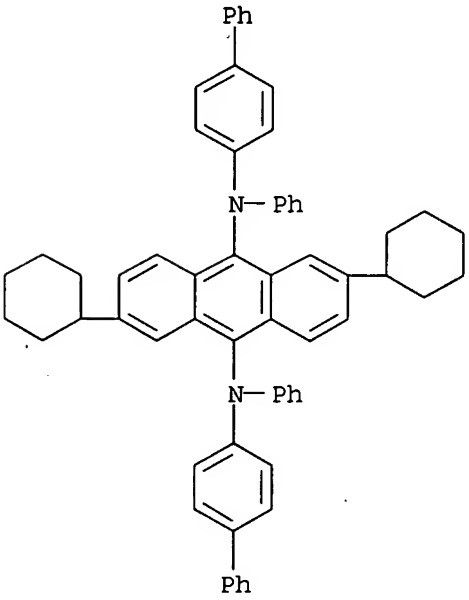
CAS ONLINE PRINTOUT

AB Disclosed is an organic electroluminescent (EL) device comprising an organic compound layer which is composed of one or more layers including at least a light-emitting layer and interposed between a pair of electrodes. In this organic EL device, the light-emitting layer contains (1) at least one selected from silacyclopentadiene derivs. having a specific structure and borane derivs. having a specific structure, and at least one selected from amine-containing compds.; or (2) at least one selected from silacyclopentadiene derivs. having a specific structure and at least one selected from amine-containing compds. This organic EL device has excellent heat resistance, long life and high luminous efficiency, and emits light ranging from blue to red.

IT 868405-61-2
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent device containing silacyclopentadiene derivs.)

RN 868405-61-2 CAPLUS

CN 9,10-Anthracenediamine, N,N'-bis[1,1'-biphenyl]-4-yl-2,6-dicyclohexyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:1005056 CAPLUS
DN 143:295337
TI Organic electroluminescence display device
IN Yamamichi, Keiko; Fukuoka, Kenichi; Yuasa, Kimihiro; Hosokawa, Chishio; Kuma, Hitoshi
PA Idemitsu Kosan Co., Ltd., Japan
SO PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005086539	A1	20050915	WO 2005-JP2558	20050218

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1722604	A1	20061115	EP 2005-710391	20050218	
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR					
CN 1914958	A	20070214	CN 2005-80004027	20050218	
US 2007200123	A1	20070830	US 2006-591688	20060905	
PRAI JP 2004-62774	A	20040305			
JP 2004-151625	A	20040521			
WO 2005-JP2558	W	20050218			

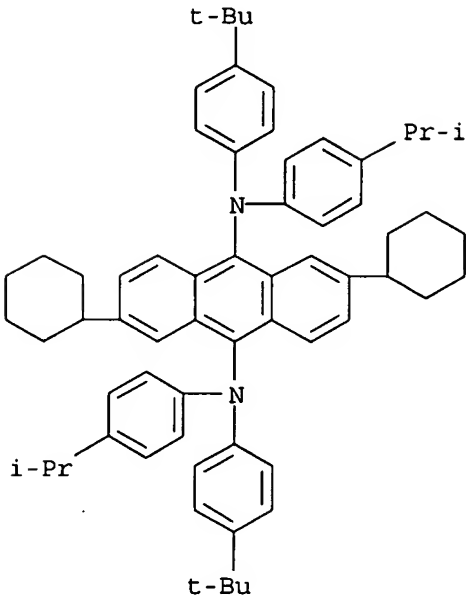
AB An organic EL display device has a substrate, and a first organic EL element part and a second organic EL element part which are arranged in parallel on the same plane of the substrate. The first organic EL element part at least includes a light reflecting conductor layer, an organic light emitting medium layer and a transparent electrode layer in this order, and inside or outside of the organic light emitting medium layer or the transparent electrode layer, a light reflecting layer is provided. The second organic EL element part at least includes the light reflecting conductor layer, a first inorg. compound layer, an organic light-emitting medium layer and a transparent electrode layer in this order, and inside or outside of the organic light-emitting medium layer or the transparent electrode layer, the light reflecting layer is provided. The emission spectrum of light emitted from the first organic EL element part and that from the second organic EL element part are different.

IT 782504-36-3
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(organic electroluminescent display device)

RN 782504-36-3 CAPLUS

CN 9,10-Anthracenediamine, 2,6-dicyclohexyl-N9,N10-bis[4-(1,1-dimethylethyl)phenyl]-N9,N10-bis[4-(1-methylethyl)phenyl]- (CA INDEX NAME)

CAS ONLINE PRINTOUT



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:902330 CAPLUS
DN 141:386152
TI Aromatic amine derivative and organic electroluminescent device employing the same
IN Funahashi, Masakazu
PA Idemitsu Kosan Co., Ltd., Japan
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

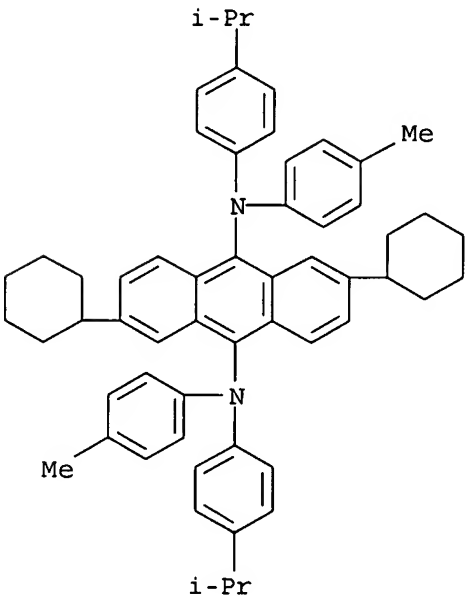
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004092111	A1	20041028	WO 2004-JP140	20040113
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1612202	A1	20060104	EP 2004-701680	20040113
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1768029	A	20060503	CN 2004-80008768	20040113
	IN 2005CN02559	A	20070727	IN 2005-CN2559	20051006
	US 2006202190	A1	20060914	US 2005-552449	20051110
PRAI	JP 2003-106231	A	20030410		
	WO 2004-JP140	W	20040113		

OS MARPAT 141:386152
AB Disclosed is an aromatic amine derivative having a specific structure comprising

a substituted anthracene structure and connected thereto an amine structure substituted by a substituted benzene ring; and an organic electroluminescent device comprising a cathode, an anode, and ≥1 thin organic film layers sandwiched therebetween which comprise at least a luminescent layer, wherein at least 1 of the thin organic film layers consists only of the aromatic amine derivative or contains the derivative as a component of a mixture The device is high in luminance and luminescence efficiency and has a long life. The aromatic amine derivative is a novel 1 which realizes the device.

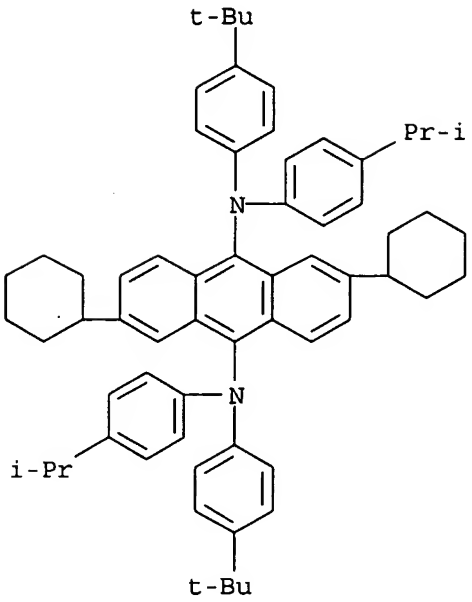
IT 782504-34-1P 782504-36-3P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(aromatic amine derivative for organic electroluminescent device)

RN 782504-34-1 CAPLUS
CN 9,10-Anthracenediamine, 2,6-dicyclohexyl-N,N'-bis[4-(1-methylethyl)phenyl]-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 782504-36-3 CAPLUS
CN 9,10-Anthracenediamine, 2,6-dicyclohexyl-N9,N10-bis[4-(1,1-dimethylethyl)phenyl]-N9,N10-bis[4-(1-methylethyl)phenyl]- (CA INDEX NAME)

CAS ONLINE PRINTOUT



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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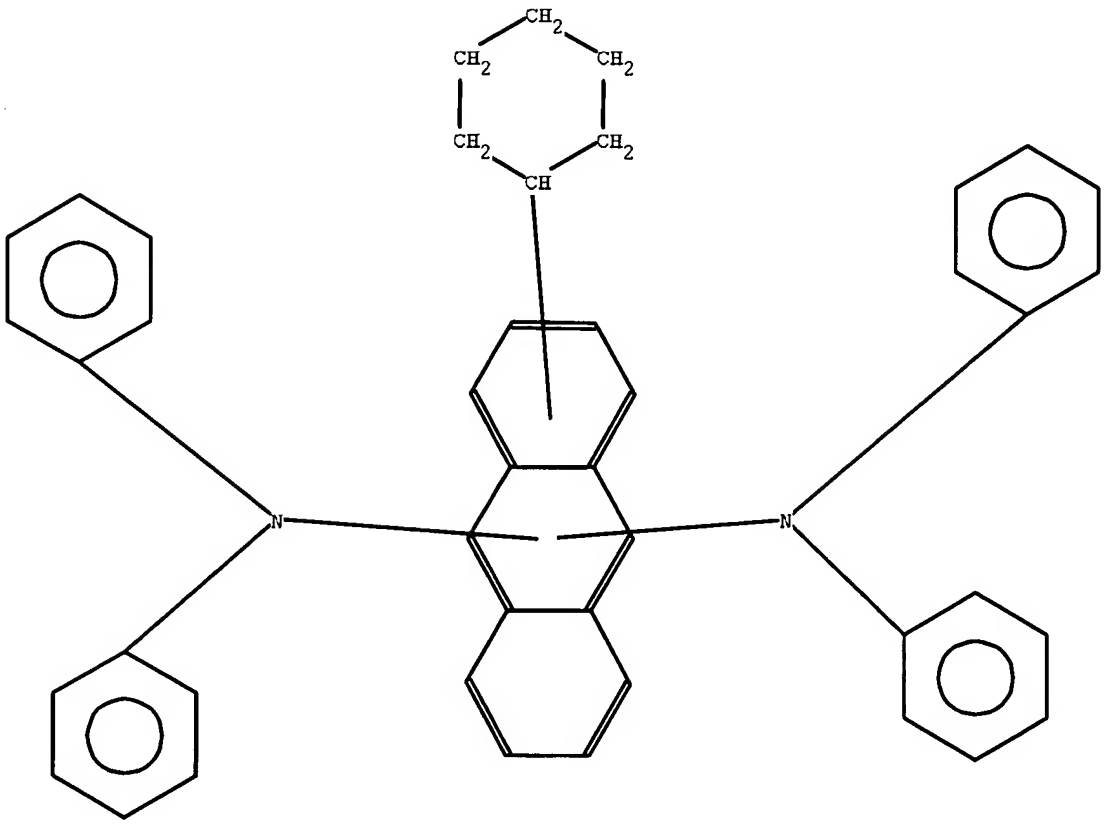

chain nodes :

39 40

14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19
24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30
35:Atom 36:Atom 37:Atom 38:Atom 39:CLASS 40:CLASS
47:Atom 48:Atom 49:Atom 50:Atom